AMENDMENTS TO THE CLAIMS:

Amend the claims as follows:

Claims 1-219. (Canceled)

220. (Previously Presented) An inhibitor of histone deacetylase represented by the formula

$$Cy\text{-}L^1\text{-}Ar\text{-}Y^1\text{-}C(O)\text{-}NH\text{-}Z$$

wherein

Cy is cycloalkyl, aryl, heteroaryl, or heterocyclyl, any of which may be optionally substituted;

L^1 is $-(CH_2)_m-W-$, where m is 0, 1, 2, 3, or 4, and W is selected from the group consisting of $-C(O)NH-$, $-S(O)_2NH-$, $-NHS(O)_2-$, and $-NH-C(O)-NH-$;

Ar is arylene, wherein said arylene optionally may be additionally substituted and optionally may be fused to an aryl or heteroaryl ring, or to a saturated or partially unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted;

Y^1 is a chemical bond or a straight- or branched-chain saturated alkylene, wherein said alkylene may be optionally substituted; and

Z is selected from the group consisting of anilinyl, pyridyl, thiadiazolyl, and -O-M, M being H or a pharmaceutically acceptable cation;

provided that when L^1 is -C(O)NH-, Y^1 is an alklene of formula $-(CH_2)_n-$, n being 1, 2 or 3, and Z is -O-M, then Cy is not aminophenyl, dimethylaminophenyl, or hydroxyphenyl; and further provided that when L^1 is -C(O)NH- and Z is pyridyl, then Cy is not substituted indolinyl.

221. (Previously Presented) The inhibitor of claim 220, wherein Z is selected from the group consisting of 2-anilinyl, 2-pyridyl, 1,3,4-thiadiazol-2-yl, and -O-M, M being H or a pharmaceutically acceptable cation.

222. (Previously Presented) The inhibitor of claim 221, wherein Z is 1,3,4-thiadiazol-2-yl which is substituted at the 5-position with a substituent selected from the group consisting of thiol, trifluoromethyl, amino, and sulfonamido.

223. (Previously Presented) The inhibitor of claim 220, wherein Y^1 is C_1-C_6 alkylene.

224. (Previously Presented) The inhibitor of claim 220, wherein Y^1 is C_1-C_3 alkylene.

225. (Previously Presented) The inhibitor of claim 220, wherein Ar is substituted or unsubstituted phenylene, which optionally may be fused to an aryl or heteroaryl ring, or to a saturated or partially unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted.

226. (Previously Presented) The inhibitor of claim 225, wherein the phenylene is 4-phenylene.

227. (Previously Presented) The inhibitor of claim 220, wherein Cy is selected from the group consisting of phenyl, naphthyl, thienyl, benzothienyl, and quinolyl, any of which may be optionally substituted.

228. (Previously Presented) The inhibitor of claim 227, herein the phenyl, naphthyl, thienyl, benzothienyl, or quinolyl is unsubstituted or is substituted by one or two substituents independently selected from the group consisting of C_1-C_4 alkyl, C_1-C_4 haloalkyl, C_6-C_{10} aryl, (C_6-C_{10})ar(C_1-C_6)alkyl, halo, nitro, hydroxy, C_1-C_6 alkoxy, C_1-C_6 alkoxycarbonyl, carboxy, and amino.

229. (Previously Presented) The inhibitor of claim 220, wherein m is zero.

230. (Previously Presented) An inhibitor of histone deacetylase represented by the formula

$$Cy\text{-}L^2\text{-}Ar\text{-}Y^2\text{-}C(O)NH\text{-}Z$$

wherein

Cy is cycloalkyl, aryl, heteroaryl, or heterocyclyl, any of which may be optionally substituted, provided that Cy is not a (spirocycloalkyl)heterocyclyl;

L^2 is C_1-C_6 saturated alkylene or C_2-C_6 alkenylene, wherein the alkylene or alkenylene optionally may be substituted, provided that L^2 is not -C(O)-, and wherein one of the carbon atoms of the alkylene optionally may be replaced by a heteroatom moiety selected from the group consisting of O; NR', R' being alkyl, acyl, or hydrogen; S; S(O); or $S(O)_2$;

Ar is arylene, wherein said arylene optionally may be additionally substituted and optionally may be fused to an aryl or heteroaryl ring, or to a saturated or partially unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted; and

Y^2 is a chemical bond or a straight- or branched-chain saturated alkylene, which may be optionally substituted, provided that the alkylene is not substituted with a substituent of the formula -C(O)R wherein R comprises an α-amino acyl moiety; and

Z is selected from the group consisting of anilinyl, pyridyl, thiadiazolyl, and -O-M, M being H or a pharmaceutically acceptable cation;

provided that when the carbon atom to which Cy is attached is oxo substituted, then Cy and Z are not both pyridyl.

231. (Previously Presented) The inhibitor of claim 230, wherein Z is selected from the group consisting of 2-nilinyl, 2-pyridyl, 1,3,4-thiadiazol-2-yl, and -O-M, M being H or a pharmaceutically acceptable cation.

232. (Previously Presented) The inhibitor of claim 231, wherein Z is 1,3,4-thiadiazol-2-yl which is substituted at the 5-position with a substituent selected from the group consisting of thiol, trifluoromethyl, amino, and sulfonamido.

233. (Previously Presented) The inhibitor of claim 230, wherein Y^2 is a chemical bond.

234. (Previously Presented) The inhibitor of claim 230, wherein Y^2 is C_1-C_3 alkylene.

235. (Previously Presented) The inhibitor of claim 230, wherein Y^2 is C_1-C_2 alkylene.

236. (Previously Presented) The inhibitor of claim 230, wherein Ar is substituted or unsubstituted phenylene, which optionally may be fused to an aryl or heteroaryl ring,

or to a saturated or partially unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted.

237. (Previously Presented) The inhibitor of claim 236, wherein the phenylene is 4-phenylene.

238. (Previously Presented) The inhibitor of claim 230, wherein Cy is selected from the group consisting of phenyl, naphthyl, thienyl, benzothienyl, and quinolyl, any of which may be optionally substituted.

239. (Previously Presented) The inhibitor of claim 238, wherein the phenyl, naphthyl, thienyl, benzothienyl, or quinolyl is unsubstituted or is substituted by one or two substituents independently selected from the group consisting of C_1-C_4 alkyl, C_1-C_4 haloalkyl, C_6-C_{10} aryl, (C_6-C_{10})ar(C_1-C_6)alkyl, halo, nitro, hydroxy, C_1-C_6 alkoxy, C_1-C_6 alkoxycarbonyl, carboxy, and amino.

240. (Previously Presented) The inhibitor of claim 230, wherein one or two saturated carbons in L^2 are substituted with a substituent independently selected from the group consisting of C_1-C_6 alkyl, C_6-C_{10} aryl, amino, oxo, hydroxy, C_1-C_4 alkoxy, and C_6-C_{10} aryloxy.

241. (Previously Presented) The inhibitor of claim 240, wherein the substituent is oxo or hydroxy.

242. (Previously Presented) The inhibitor of claim 230, wherein L^2 is C_1-C_6 saturated alkylene, and no carbon atom of the alkylene is replaced by a heteroatom moiety.

243. (Previously Presented) The inhibitor of claim 230, wherein one carbon atom of the Y^2 alkylene is replaced by a heteroatom moiety selected from the group consisting of O; NR', R' being alkyl, acyl, or hydrogen; S; S(O); or $S(O)_2$.

244. (Previously Presented) The inhibitor of claim 243, wherein L^2 is selected from the group consisting of -S-$(CH_2)_n$, -S(O)-$(CH_2)_n$-, and -$S(O)_2$-$(CH_2)_n$-, wherein n is 0, 1, 2, 3, or 4.

245. (Previously Presented) An inhibitor of histone deacetylase represented by the formula

$$Cy\text{-}L^3\text{-}Ar\text{-}Y^3\text{-}C(O)NH\text{-}Z$$

wherein

Cy is cycloalkyl, aryl, heteroaryl, or heterocyclyl, any of which may be optionally substituted, provided that Cy is not a (spirocycloalkyl)heterocyclyl;

L^3 is selected from the group consisting of

(a) $-(CH_2)_m-W-$, where m is 0, 1, 2, 3, or 4, and W is selected from the group consisting of -C(O)NH-, $-S(O)_2NH-$, -NHC(O)-, $-NHS(O)_2-$, and -NH-C(O)-NH-; and

(b) C_1-C_6 alkylene or C_2-C_6 alkenylene, wherein the alkylene or alkenylene optionally may be substituted, provided that L^3 is not -C(O)-, and wherein one of the carbon atoms of the alkylene optionally may be replaced by O; NR', R' being alkyl, acyl, or hydrogen; S; S(O); or $S(O)_2$;

Ar is arylene, wherein said arylene optionally may be additionally substituted and optionally may be fused to an aryl or heteroaryl ring, or to a saturated or partially unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted; and

Y^3 is C_2 alkenylene or C_2 alkynylene, wherein one or both carbon atoms of the alkenylene optionally may be substituted with alkyl, aryl, alkaryl, or aralkyl; and

Z is selected from the group consisting of anilinyl, pyridyl, thiadiazolyl, and -O-M, M being H or a pharmaceutically acceptable cation;

provided that when Cy is unsubstituted phenyl, Ar is not phenyl wherein L^3 and Y^3 are oriented ortho or meta to each other.

246. (Previously Presented) The inhibitor of claim 245, wherein Z is selected from the group consisting of 2-anilinyl, 2-pyridyl, 1,3,4-thiadiazol-2-yl, and -O-M, M being H or a pharmaceutically acceptable cation.

247. (Previously Presented) The inhibitor of claim 246, wherein Z is 1,3,4-thiadiazol-2-yl which is substituted at the 5-position with a substituent selected from the group consisting of thiol, trifluoromethyl, amino, and sulfonamido.

248. (Previously Presented) The inhibitor of claim 245, wherein Y^3 is selected from the group consisting of -CH=CH-, -C(CH_3)=CH-, and -CH=C(CH_3)-.

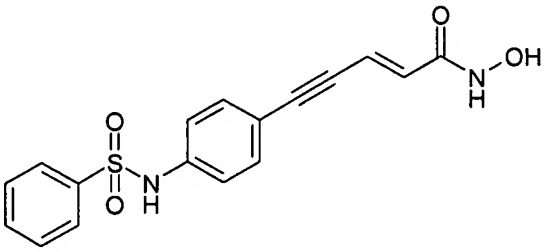
249. (Previously Presented) The inhibitor of claim 245, wherein Ar is substituted or unsubstituted phenylene, which optionally may be fused to an aryl or heteroaryl ring, or to a saturated or partially unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted.

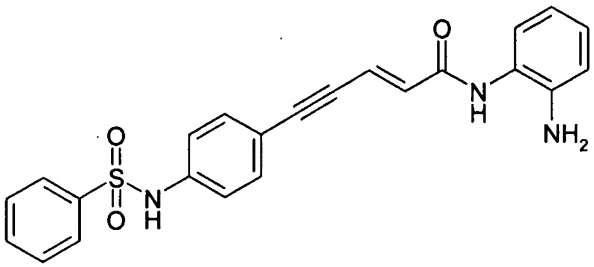
250. (Previously Presented) The inhibitor of claim 249, wherein the phenylene is 4-phenylene.

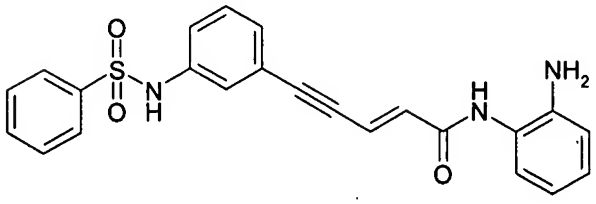
251. (Previously Presented) The inhibitor of claim 245, wherein Cy is selected from the group consisting of phenyl, naphthyl, thienyl, benzothienyl, and quinolyl, any of which may be optionally substituted.

252. (Previously Presented) The inhibitor of claim 251, wherein the phenyl, naphthyl, thienyl, benzothienyl, or quinolyl is unsubstituted or is substituted by one or two substituents independently selected from the group consisting of C_1-C_4 alkyl, C_1-C_4 haloalkyl, C_6-C_{10} aryl, (C_6-C_{10})ar(C_1-C_6)alkyl, halo, nitro, hydroxy, C_1-C_6 alkoxy, C_1-C_6 alkoxycarbonyl, carboxy, and amino.

253. (Currently Amended) An inhibitor of histone deacetylase selected from the group consisting of







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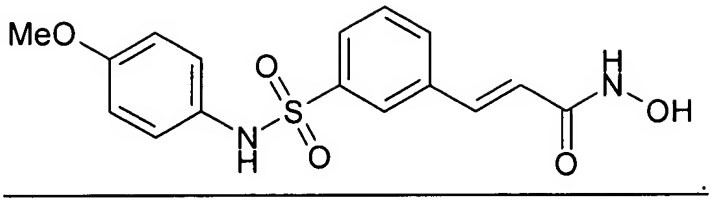

254. (Previously Presented) An inhibitor of histone deacetylase represented by the formula

$$Cy\text{-}L^1\text{-}Ar\text{-}Y^1\text{-}C(O)\text{-}NH\text{-}Z$$

wherein

Cy is aryl or heteroaryl, any of which may be optionally substituted;

L^1 is $-(CH_2)_m-W-$, where m is 0, 1, 2, 3, or 4, and W is selected from the group consisting of $-S(O)_2NH-$ and $-NHS(O)_2-$

Ar is arylene, wherein said arylene optionally may be additionally substituted and optionally may be fused to an aryl or heteroaryl ring, or to a saturated or partially unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted;

Y^1 is a chemical bond or a straight- or branched-chain saturated alkylene, wherein said alkylene may be optionally substituted; and

Z is -O-M, M being H or a pharmaceutically acceptable cation.

255. (Previously Presented) The inhibitor of claim 254, wherein Y^1 is C_1-C_7 alkylene.

256. (Previously Presented) The inhibitor of claim 254, wherein Y^1 is-CH_2-, -$CH(CH_3)$-, -CH_2CH_2-, -CH=CH-, -C≡C-, -$CH(CH_2CH_3)$-, -$CH(CH_3)CH_2$-, -$CH_2CH(CH_3)$-, -$CH=C(CH_3)$-, -$C(CH_3)=CH_2$-, -$CH_2CH_2CH_2$-, -$CH=CHCH_2$-, -$CH_2CH=CH$-, -$C≡CCH_2$-, or -$CH_2C≡C$-.

257. (Previously Presented) The inhibitor of claim 254, wherein Ar is substituted or unsubstituted phenylene, which optionally may be fused to an aryl or heteroaryl ring, or to a saturated or partially unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted.

258. (Previously Presented) The inhibitor of claim 257, wherein the phenylene is 4-phenylene.

259. (Previously Presented) The inhibitor of claim 254, wherein Cy is selected from the group consisting of phenyl, naphthyl, benzothienyl, and quinolyl, any of which may be optionally substituted.

260. (Previously Presented) The inhibitor of claim 259, herein the phenyl, naphthyl, thienyl, benzothienyl, or quinolyl is unsubstituted or is substituted by one or two substituents independently selected from the group consisting of C_1-C_7 alkyl, C_1-C_7 haloalkyl, C_5-C_{20} aryl, (C_5-C_{20})ar(C_1-C_7)alkyl, halo, nitro, hydroxy, C_1-C_7 alkoxy, C_1-C_7 alkoxycarbonyl, carboxy, and amino.

261. (Previously Presented) The inhibitor of claim 254, wherein m is zero.

262. (Previously Presented) An inhibitor of histone deacetylase represented by the formula

$$Cy\text{-}L^2\text{-}Ar\text{-}Y^2\text{-}C(O)NH\text{-}Z$$

wherein

Cy is aryl orheteroaryl, any of which may be optionally substituted, provided that Cy is not a (spirocycloalkyl)heterocyclyl;

L^2 is C_1-C_7 saturated alkylene or C_2-C_7 alkenylene, wherein the alkylene or alkenylene optionally may be substituted, provided that L^2 is not -C(O)-;

Ar is arylene, wherein said arylene optionally may be additionally substituted and optionally may be fused to an aryl or heteroaryl ring, or to a saturated or partially

unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted; and

Y^2 is a chemical bond or a straight- or branched-chain saturated alkylene, which may be optionally substituted, provided that the alkylene is not substituted with a substituent of the formula -C(O)R wherein R comprises an α-amino acyl moiety; and

Z is -O-M, M being H or a pharmaceutically acceptable cation;

provided that when the carbon atom to which Cy is attached is oxo substituted, then Cy and Z are not both pyridyl.

263. (Previously Presented) The inhibitor of claim 262, wherein Y^2 is a chemical bond.

264. (Previously Presented) The inhibitor of claim 262, wherein Y^2 is C_1-C_3 $-CH_2-$, $-CH(CH_3)-$, $-CH_2CH_2-$, $-CH=CH-$, $-C\equiv C-$, $-CH(CH_2CH_3)-$, $-CH(CH_3)CH_2-$, $-CH_2CH(CH_3)-$, $-CH=C(CH_3)-$, $-C(CH_3)=CH_2-$, $-CH_2CH_2CH_2-$, $-CH=CHCH_2-$, $-CH_2CH=CH-$, $-C\equiv CCH_2-$, or $-CH_2C\equiv C-$.

265. (Previously Presented) The inhibitor of claim 262, wherein Y^2 is $-CH_2-$, $-CH(CH_3)-$, $-CH_2CH_2-$, $-CH=CH-$, or $-C\equiv C-$.

266. (Previously Presented) The inhibitor of claim 262, wherein Ar is substituted or unsubstituted phenylene, which optionally may be fused to an aryl or heteroaryl ring, or to a saturated or partially unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted.

267. (Previously Presented) The inhibitor of claim 266, wherein the phenylene is 4-phenylene.

268. (Previously Presented) The inhibitor of claim 262, wherein Cy is selected from the group consisting of phenyl, naphthyl, benzothienyl, and quinolyl, any of which may be optionally substituted.

269. (Previously Presented) The inhibitor of claim 268, wherein the phenyl, naphthyl, benzothienyl, or quinolyl is unsubstituted or is substituted by one or two substituents independently selected from the group consisting of C_1-C_7 alkyl, C_1-C_7 haloalkyl, C_5-C_{20} aryl, (C_5-C_{20})ar(C_1-C_7)alkyl, halo, nitro, hydroxy, C_1-C_7 alkoxy, C_1-C_7 alkoxycarbonyl, carboxy, and amino.

270. (Previously Presented) The inhibitor of claim 262, wherein one or more carbons in L^2 are substituted with a substituent independently selected from the group consisting of C_1-C_7 alkyl, C_5-C_{20} aryl, amino, oxo, hydroxy, C_1-C_7 alkoxy, and C_5-C_{20} aryloxy.

271. (Previously Presented) The inhibitor of claim 270, wherein the substituent is oxo or hydroxy.

272. (Previously Presented) The inhibitor of claim 264, wherein L^2 is C_1-C_7 saturated alkylene, and no carbon atom of the alkylene is replaced by a heteroatom moiety.

273. (Previously Presented) An inhibitor of histone deacetylase represented by the formula

$$Cy\text{-}L^3\text{-}Ar\text{-}Y^3\text{-}C(O)NH\text{-}Z$$

wherein

Cy is arylor heteroaryl, any of which may be optionally substituted, provided that Cy is not a (spirocycloalkyl)heterocyclyl;

L^3 is selected from the group consisting of

(a) $-(CH_2)_m$-W-, where m is 0, 1, 2, 3, or 4, and W is selected from the group consisting of $-S(O)_2NH-$ and $-NHS(O)_2-$; and

(b) C_1-C_7 alkylene or C_2-C_7 alkenylene, wherein the alkylene or alkenylene optionally may be substituted, provided that L^3 is not -C(O)-;

Ar is arylene, wherein said arylene optionally may be additionally substituted and optionally may be fused to an aryl or heteroaryl ring, or to a saturated or partially unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted; and

Y^3 is -CH=CH- or -C≡C-, wherein one or both carbon atoms of -CH=CH- optionally may be substituted with C_{1-7}alkyl, C_{5-20}aryl, C_{1-7}alkyl-C_{5-20}aryl, or C_{5-20}aryl-C_{1-7}alkyl; and

Z is -O-M, M being H or a pharmaceutically acceptable cation;

provided that when Cy is unsubstituted phenyl, Ar is not phenyl wherein L^3 and Y^3 are oriented ortho or meta to each other.

274. (Previously Presented) The inhibitor of claim 273, wherein Y^3 is selected from the group consisting of -CH=CH-, -C(CH_3)=CH-, and -CH=C(CH_3)-.

275. (Previously Presented) The inhibitor of claim 273, wherein Ar is substituted or unsubstituted phenylene, which optionally may be fused to an aryl or heteroaryl ring,

or to a saturated or partially unsaturated cycloalkyl or heterocyclic ring, any of which may be optionally substituted.

276. (Previously Presented) The inhibitor of claim 275, wherein the phenylene is 4-phenylene.

277. (Previously Presented) The inhibitor of claim 273, wherein Cy is selected from the group consisting of phenyl, naphthyl, benzothienyl, and quinolyl, any of which may be optionally substituted.

278. (Previously Presented) The inhibitor of claim 277, wherein the phenyl, naphthyl, benzothienyl, or quinolyl is unsubstituted or is substituted by one or two substituents independently selected from the group consisting of C_1-C_7 alkyl, C_1-C_7 haloalkyl, C_5-C_{20} aryl, (C_5-C_{20})ar(C_1-C_7)alkyl, halo, nitro, hydroxy, C_1-C_7 alkoxy, C_1-C_7 alkoxycarbonyl, carboxy, and amino.